Applying to be a Mandela Washington Fellow: Tips from a 2014 Fellow

Nigerian entrepreneur Adepeju Jaiyeoba meets President Obama. (White House/Pete Souza)

The 2016 Mandela Washington Fellowship application is now open! Adepeju Jaiyeoba, a 2014 Mandela Washington Fellow, has put together the following tips for YALI Network members on preparing a great application.

Story of change
What's your driving force? What motivates you to do the work you do? What's your story? Do not spend a paragraph on this. Trust me, a line is more than sufficient.

Understand the questions asked
Don't be too quick to provide answers to the questions. Understand the questions asked, as every question is aimed at discovering certain things about you as an individual and leader.

Demonstrate practical knowledge of the needs of your community
Let your writing show you understand the problem of your community. Connect the problem to real-life stories and situations to drive home your point and let your solution not be in doubt.

Emphasize that you are a leader who takes initiative
Communities across Africa have varying challenges. In your own little corner of the world, before the opportunity to apply for this fellowship, tell about how you have been helping your community solve pressing problems.

Proofread your application
Every year, thousands of applicants apply for the Mandela Washington Fellowship. The applications are not scored by robots or machines — they are scored by human beings, which is why you should really proofread your application and rid it of errors so you do not turn off the markers.

Don't confuse the marker
A lot of times we are involved in a series of businesses as well as running different NGOs, which in many cases are unrelated. For example, you could be selling fabrics, be into waste management, run an NGO on climate change and still want to keep girls in school. Completing the application may be a real challenge to you as you may want to put all of your various aspects into the application. This may only end up confusing the marker. Let there be a sequential flow in your thoughts and writings so you don't get the marker scrolling up to check your name and be sure he's still scoring the same application he started out with.

Visit yali.state.gov/apply for more tips and information on preparing a great application.

American Conservationist Learns from Kenya

Join #YALIGoesGreen this month. Learn how to get involved at yali.state.gov/climate

By Karin Rives

Adam Whelchel of The Nature Conservancy with Wangari Maathai, the founder of Kenya's Green Belt Movement. (The Nature Conservancy)

After practicing and preaching environmental conservation for the past 60 years, The Nature Conservancy knows a thing or two about strategy. So when Adam Whelchel, a conservation director for the U.S.-based group, traveled to Kenya in 2009, he thought he would teach the Green Belt Movement in Nairobi how to, well, run an environmental movement.

Instead, he says, "I walked away as a student."

In fact, the 38-year-old Green Belt Movement (GBM) is a formidable force in the struggle to protect East Africa's threatened water and forest resources. On its list of accomplishments is the planting of some 45 million trees, not a small feat in a country where competition over land is fierce.

Whelchel said he has been humbled by GBM's remarkable ability to overcome conflicts and bring together people with different interests. "I saw that in every village I worked with them. People show a tremendous pride over their relationship with GBM," he said.

He was also impressed by the commitment he witnessed. GBM staff, he said, will put in 14-hour days to try to save their country's environment — and then still have energy for a joke at the end of the day.

The ability to laugh, no matter how big their challenges, Whelchel said, may give the conservationists in Africa an edge over many of their peers in other parts of the world.

Planting a Grass-roots Organization

Wangari Maathai, who founded the Green Belt Movement in Kenya, won the Nobel Peace Prize for her work in environmental conservation and women's rights. (© AP Images)

GBM's world-renowned founder, Wangari Maathai, began small in the late 1970s, gathering village women to grow seedlings and plant trees. After operating under the government's radar during the early years, her rapidly expanding movement caught the attention of Kenya's then-president, Daniel arap Moi. He and others in power didn't appreciate the fact that women were organizing on their own.

In an old public speech shown in a 2008 documentary about Maathai's work, Moi can be seen criticizing a "certain woman" who had dared to rally other women to plant trees. "According to African traditions," Moi said with a wry smile, "women must respect their men."

But Maathai continued, fearlessly, to organize communities in the country's semi-arid countryside, winning over more women and eventually men, teachers, children and politicians. In 2004, she became the first African woman to win the Nobel Peace Prize for her efforts. Maathai stayed involved with the group's advocacy campaigns while writing articles and books at a prolific pace until her death in 2011.

Moi left power years ago, but East Africa's environmental challenges remain. Today, GBM enjoys support from the Kenyan government as well as from seasoned environmental groups such as The Nature Conservancy. GBM staffers in Nairobi, London and Washington continue working to recruit new activists and obtain funding to increase the organization's impact.

Strategy for a Growing Movement

The Green Belt Movement teaches environmental education to Kenyan schoolchildren. (The Nature Conservancy)

Whelchel traveled from his office in Connecticut to Nairobi to help GBM take what he calls "a business approach to conservation."

"It's a way to think strategically about what priorities do we have and what actions need to be taken to achieve those priorities, and to then measure the outcome," Whelchel said. "Without such plans … your messaging isn't as sharp. People want to see a return on the investments and how their efforts have made a difference, and without having a way to measure, you're less effective in telling that story."

The Nature Conservancy returned Whelchel to Kenya in January 2011, this time to conduct a workshop focused on how GBM can incorporate watershed management in its strategy for Kenya and other parts of Africa.

Trees are critical to a healthy ecosystem because they help retain rainwater and replenish groundwater supplies. Kenya, however, has lost almost its entire forest cover in the past half-century due to illegal logging, tea plantations, and pressures from a growing population that must clear land to grow food.

Today, only 6 percent of the country is covered by trees.

Deforestation has aggravated droughts and also affected energy supplies. Kenya depends on

hydropower for 44 percent of its electricity, making the entire economy vulnerable to water shortages.

“The prognosis is not good, and one thing they need for sure is more forest that can capture and filter more rainwater for the people who need it,” Whelchel said.

Wanjira Mathai, the daughter of the movement’s founder and its international liaison, said she remembers her mother telling her and her siblings at an early age to fight for what they believe in. Mathai (who spells her last name without the double a) has since earned a business degree and transitioned from a job in public health to work full time for GBM.

“We have benefited tremendously from the exchange of technical knowledge that has enabled us to not only do our work more efficiently, but also talk about our work in ways that demonstrate the impact,” she said.

Today, GBM is stronger than it has ever been as it networks with similar organizations in other parts of the African continent and with people in power.

“It’s one of the things that has become so wonderful,” Mathai said. “The government is the custodian of these forests, so we need to be working with them.”

Farming’s Climate-Changed Future

A hand spread over dry, cracked earth.

Agriculture in sub-Saharan Africa — which employs 65 percent of Africa’s labor force and accounts for 32 percent of its gross domestic product — has looked the same for generations: a majority of smallholder farmers growing crops and raising livestock on land they use to both feed their families and earn their living. But with the effects of climate change already being felt across the continent, those who want to continue to earn their living through farming will need to adapt to the realities of the effects of climate change.

A report from the World Bank forecasts a 4 degrees Celsius global warming by the end of the century, with the sea level rising up to 100 centimeters. Droughts are expected to increase in central and southern Africa, along with unprecedented extremes of heat. The same report predicts increased annual precipitation in the Horn of Africa and parts of East Africa that will increase the risk of flooding. With 96 percent of cropland in Africa being rain-fed, the continent is dependent on the climate. And the climate is changing.

“The main people affected by climate change in my country are small farmers,” said Aicha Sako, a 2015 Mandela Washington Fellow from Mali who works on climate adaptation strategies. Sako says

that practices such as choosing crops than can adapt to longer rainfalls, crop diversification and landscape mapping (determining different soil types and how they can be used most efficiently) will be important to small farmers' survival.

Studies show that crops such as maize, sorghum and millet are vulnerable to the elevated levels of carbon dioxide that climate change will bring. Plants such as wheat, rice, cassava and yam, however, are more resistant to elevated carbon-dioxide levels — and in some cases will even have a positive response to those conditions.

"Farmers need to think about which crops they can use, where they use them and when," said Sako, "to save energy and make their businesses sustainable."

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Applying to be a Mandela Washington Fellow: Common Questions

For each of the past three years, staff from the U.S. Department of State have answered questions from YALI Network members about applying for the Mandela Washington Fellowship for Young African Leaders.

As Network members applicants begin to prepare their applications for the 2017 Mandela Washington Fellowship, we took a look back at some of the common questions we've answered in person on completing the application, the process for applying, and what applicants need to know about the Mandela Washington Fellowship.

For each of the past three years, staff from the U.S. Department of State have answered questions from YALI Network members about applying for the Mandela Washington Fellowship for Young African Leaders.

On how Mandela Washington Fellows are selected …

You have to be a citizen of a sub-Saharan African country and have to be residing in a sub-Saharan African country. You should be proficient in English, and between the ages of 25 and 35 at the time of your application. You should have a proven record of leadership or accomplishment in public service, business/entrepreneurship or civic engagement. We also like to see a demonstrated commitment to public or community service, to volunteerism or mentorship. We are looking for someone who has the ability to work cooperatively in diverse groups and who respects the opinions of others — someone with demonstrated knowledge or experience in the track for which you are applying. The essays and the applications that you submit are very important, because we want to see people who've had a track record of making change and are looking forward to making change as we move forward. One must be energetic and positive. The most important criteria is to have a

real commitment to return to Africa and put your new leadership skills into use to benefit your community and country.

On English proficiency …

We're looking for applicants who have English that is good enough to participate in an academic program in the United States. There is no TOEFL test, but we ask applicants to self-rate their English on their applications. There are also the essays that must be well-written in English. There will be an interview process and we will get a feel for whether you actually can speak English or not. It will become apparent whose English is strong. If you make it to the semifinalist round and are interviewed at the U.S. Embassy or somewhere else in your country, the staff there will of course be holding the interview in English.

On applying from a different country than where you permanently reside …

We are looking for candidates who are living in sub-Saharan Africa and who are committed to the future of their continent and home country. For the purposes of this program, we don't look at Morocco, Algeria, Tunisia, Libya, and Egypt as part of sub-Saharan Africa. Interviews for the Fellowship will be occurring in sub-Saharan Africa. If you are applying in sub-Saharan Africa but in a different country in sub-Saharan Africa from which you normally reside (maybe you are studying or working in another country), the embassy in the country in which you're currently living will likely be able to do the interview for you and then transmit that back to our embassy in your home country to make a decision.

On setting quotas …

We value diversity in the United States and hope to reflect this in the Washington Fellowship program. We want a diverse group of countries, ethnic groups, religions, gender, physical, visual, and hearing abilities. We are looking for a diverse group of opinions as well. We are looking for the full range of people who make up African society. We expect to have people participating in this program from every country in sub-Saharan Africa. Ultimately, we want to make sure we have a representative group of individuals from across the continent as a whole.

On what documentation to include with your application …

The key thing we are looking for is demonstrated leaders. It really is up to you what documents you decide you'd like to upload, so I would just suggest that you pick the documents that you think best reflect either your professional expertise or your leadership capacity. If you have trouble demonstrating that in a documented form because of various reasons outside your control, we would still like to take a look at your application. An important part of the application is the essays where you have the opportunity to demonstrate what you have accomplished and what your goals are for your future.

On which Fellowship track to choose …

A candidate who has experience in a particular track (Business & Entrepreneurship, Public Management, Civic Leadership) will be a stronger candidate than someone who has never worked in that area. But we welcome all who want to apply, both those who currently work in a particular

track and those who have an intention to do so in the future.

On submitting multiple applications and ranking the tracks …

You cannot submit several applications and it will not improve your chances. If you submit several applications you will be disqualified. Do not submit more than one application.

On the role of educational achievement in the selection process …

We will consider what your formal education is, but you will not be disqualified if you do not have a formal diploma or degree. Formal education plays a role in terms of how we evaluate your application as a whole. We really are looking for Fellows who are demonstrated leaders in their communities and their countries. Africa is a diverse continent and we know that leaders come to their achievements through both formal and informal means.

On what we expect upon your return to Africa …

We hope that you bring back new skills and new enthusiasm. What we really hope for is a multiplier effect — that you share with your friends, family and colleagues what you saw, learned, and perhaps taught others in the U.S. so that this experience grows. And we hope that you continue to stay in touch with us.

Climate Change and Agriculture in Africa

David Michael Terungwa of the African Green Movement provided the guest blog post below. Learn more about the African Green Movement at www.gifsep.org.

Members of the GIFSEP Nigeria chapter stand with an African Green Movement banner after an Executive Meeting.

Agriculture is the primary medium through which climate change will impact people, ecosystems and economies. According to the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC), this is no longer a potential threat but a conclusive, inevitable reality. Rainfall is generally expected to become more variable; floods are expected to become more common; droughts are expected to be more intense and last longer, while sea-levels are expected to rise. The net effect of all these impacts is reduced food. Understanding the dynamics of current variability and future climate change as they affect food supply and demand across all sectors and enhancing the capacity to respond is crucial. Smart and sustainable Agriculture has become of urgent and of crucial importance. For society to progress towards sustainable development, education must engage the youth. However, most youths in Africa see agriculture as a dirty man's job, forgetting that Agriculture remains the major source of employment in Africa.

Farmers in Africa are getting older – much older. Retirement is increasingly a mirage for the thousands of farmers who continue working into their late 70s and even into their mid-80s. Farmers are working significantly longer hours compared to the rest of the workforce. Rates of depression and suicide among farmers and agricultural workers are more than double the average for the non-agricultural workforce.

The reality is that we African youths can't spend our way out of hunger, poverty and unemployment in Africa. But hard work from everyone can do wonders. And it has be hard work with our hands, not just our brains.

One of the ways to mitigate the effects of climate change is Smart Agriculture.

Here is an example of Smart Agriculture: Banana stems hold water for long period of time. Take advantage of this by planting short-rooted stems in banana stems. This is done by making small holes at the stem with a knife or machete and adding a little soil. This allows the plant to grow even during the dry season without irrigation and helps minimize resources and space.

Like our ancestors, farmers have always grown their crops in soil. The threat of food insecurity from climate change makes it necessary to consider alternatives. Hydroponics is a new way of planting that does not use soil. Plants can grow in other media such as gravel, sand, coconut fiber.

Banana stems are usually thrown away after the fruit is removed, whereas processed banana stems have many uses. Banana stems are a very good medium for vegetable gardening and planting mushrooms. Banana stems contain a lot of starch that can act as a plant nutrient. Banana trees also have important compounds such as anthraquinone, saponins, and flavonoids that both benefit humans and help plants absorb nutrients.

Nettie Wiebe once said "I often say to people, what happens in the food system is of no concern to you if you're never going to eat again. But if you're intending to have breakfast, lunch or dinner, what happens to small-scale farmers, what happens to seeds, what happens to water, matters to you, because your lunch depends on it."

David Michael Terungwa at the
GIFSEP Farm in Abuja, Nigeria.
(Photo courtesy Terungwa)

This guest blog was adapted from a post on the YALI Network face2face Facebook Group.

About David Michael Terungwa: I am a Mentor with the Climate Reality Project and the President of GIFSEP (African Green Movement). I am a First class graduate of Soil and Water Conservation Engineering. I also hold a Post Graduate Certificate in Renewable Energy. Changing the world around me through teaching agricultural and Environmental sustainability is my strongest desire.

About African Green Movement: an initiative for food security and ecosystem preservation, with members from Nigeria, Tanzania, Rwanda and Kenya. Learn more at www.gifsep.org and www.facebook.com/africangreenmovement.

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the YALI Network or the U.S. government.

The Coming Effects of Climate Change

Join #YALIGoesGreen this month. Learn how to get involved at yali.state.gov/climate

We asked three 2015 Mandela Washington Fellows who work in the area of climate change what their countrymen need to know about Earth's changing climate and what it will mean for the African continent.

Asha Shaaban remembers growing up in the Laikipia district of Kenya. "My parents said it was like paradise on earth and everything grew in that place. We had pineapples, mangoes, arrowroots. That was less than 20 years ago, but right now none of those crops grow there." "If you don't take care of the natural capital, in a few years' time there'll be nothing. In Kenya, there are so many industries and so many cities coming up, but where are they going to get the water?"

Shaaban is in charge of advocacy for Integrated Water Resources Management, a program in Kenya to build the capacity of communities to ensure environmental sustainability. "Most of the farmers rely on rain-fed agriculture…the long rains used to come in April and then in September, but now it's so unpredictable. I can't remember the last time it rained at home." She sees the irregular rains' effects reaching beyond agriculture and diet into family life. She pointed to pastoralists such as the Maasai. "They end up going over 300 kilometers in search of pasture and water. They leave their homes for over three months and leave their families without fathers, and the homes are led by the women. As much as the energy sector is contributing to climate change, it is the water resources that are actually affected most. It's the water that you need for everyday living."

2015 Mandela Washington Fellow Asha Shaaban

Aicha Mohamed Sako works on data collection for climate change adaptation strategies in Mali. She is starting a small agri-business mainly focused on advice, suitable seeds selection, and adaptation strategies for smallholders under changing climates in Mali. "Farmers need to think about which crops they can use as well as where and when they can save energy to make their businesses sustainable. This is what we do. We try to tell farmers, 'You know your business, but maybe you could change your techniques to be more adaptive."

2015 Mandela Washington Fellow Aicha

Mohamed Sako

Andrew Chikomba's company, Gemwitts Enterprises, works with SNV, an international non-profit development organization, to bring technology and renewable solutions to rural Zimbabweans. "I believe there are a lot of things, as humanity, we'll lose out on. And you don't know what you've got till it's gone. We should learn from other nations that are actually trying to solve the problem. It's impossible in some instances to correct the mistakes that have been committed, so it's best for us to be prepared, take care of our environment, take care of our future. We have to start doing it now."

2015 Mandela Washington Fellow
Andrew Chikomba

From Pain Comes Strength

From Pain Comes Strength

Drucila Meireles. Credit: State Dept.

Drucila Meireles has had a lifetime of pain. Today, the 28-year-old Mandela Washington Fellow is using that experience to stand up for the rights of women and girls in Mozambique.

When Drucila was young her father beat her mother incessantly, then turned his violent anger on his children. "This was normal to us because it seemed everyone in the community lived like that," she recalled.

Fortunately, her father also sent his daughter to school. "I devoted myself to study,' she said. As early as primary school, she gained the resolve and skills that would eventually improve her life.

Drucila excelled in her studies, becoming one of the top-ranked students in her province in Zimbabwe. Then, in secondary school, a roadblock to her happiness appeared. Her mother died, followed by her father a few months later. She and her siblings were sent to live with her only aunt in an impoverished rural area of Mozambique. The aunt would not send her to school. Drucila remembers crying every day, especially when she saw uniformed students on their way to their studies. Drucila thought her dreams of getting an education were dashed forever, especially when her aunt pegged Drucila to be a "cash cow" and "a ticket out of her own miserable life."

She tried to marry her then-16-year-old niece to a rich 53-year-old man. Drucila resisted, using

persistence she had honed in school.

Before long she was offered a job as an English teacher and a place to live at a nearby private school. That provided her the means to get her siblings away from the aunt. It also gave her the independence to start dating. Unfortunately, the man she dated also turned out to be "violent and irresponsible." She became pregnant at 18, in part, she said, because her community lacked sex education for girls.

"The vicious cycle of poverty and violence seemed to follow me," she said. Yet, she again summoned the strength to improve her situation and that of her two daughters.

She found another job as an assistant in an organization that served people affected by domestic violence and HIV/AIDS. A year later she was promoted to counselor. She also volunteered as a teacher in a school for orphans.

She then joined LeMuSiCa in Chimoio, Mozambique, where she currently is a program officer. Her employer gave her the opportunity to train in what is called the "solution-based approach" to problem-solving and to "leading from behind."

"Every human being has strengths and resources, and they are the experts on their own lives," she explained.

"But it takes time," she said. "It's not like sitting one day and seeing there is order" when faced with a difficult challenge.

Drucila also serves as an advocate for victims of domestic abuse and rape, often accompanying them to court and acting as an informal legal adviser for those who can't afford an accredited attorney.

As a 2015 Mandela Fellow, she studied civic leadership at the University of Delaware this past summer and learned more about problem-solving. "I have the opportunity to go back home and help other women and children who are undergoing exactly what I went through … to make change in other people's lives," she said.

The Future Depends on Strong Youth

Osman Timbo loves politics. He wants other young people in his country of Sierra Leone to share his interest.

The 2015 Mandela Washington Fellow, 28, is a youth league leader who encourages young men and women to become involved in government and business, and to advocate for human rights. During Sierra Leone's last elections in 2012, he helped young people learn about voting. Timbo said these efforts prepare youth to steer their country toward greater development.

Sierra Leone's president agrees, establishing a ministry of youth and appointing several young people to positions of responsibility throughout government, he added.

As part of the Mandela Washington Fellowship, Timbo attended the University of Minnesota this past summer. He says the experience expanded his views of leadership.

With 24 other Mandela Washington fellows from 17 countries, Timbo visited local Minnesota groups, including Somali immigrant and Native American communities. He participated in recreational events like visiting a zoo, taking a boat cruise and seeing a baseball game so he could meet various residents of his host state. "It is leadership when you bring people together," he said.

Osman Timbo, Credit: State Dept.

"Everybody has different interests," he added. "It is important to build relationships across geographic and cultural difference." He said he would share that lesson of inclusiveness with his peers in Sierra Leone and others in the YALI Network.

"True leaders are selfless," he continued. "They listen to the people who elected them." He wants all elected officials to understand that they "are servants to these people."

Timbo said his community service experiences in Minnesota demonstrated to him the importance of sharing. At a nonprofit called Books for Africa, he packed donated books that would eventually make their way to young girls and boys thousands of miles away. "I felt like we were contributing to the world," Timbo said.

At Lutheran Social Services, he prepared food and blankets for people with sparse incomes. "It showed that small gestures can make a difference in people's lives," he added.

Timbo also learned to "zoom in" to better understand what others think of him and how to network effectively.

A lawyer, Timbo heads his government's public-private partnership efforts. He believes that partnerships are the way to go in public-service delivery because businesses and NGOs have expertise and resources that governments often lack. He said the private sector, for example, can be better than government at providing training to local people so they can get jobs that will help them improve their livelihoods and their communities.

Timbo is confident his improved skills will help him in the future. He wants to run for parliament in Sierra Leone. After that, when he meets his country's minimum age requirement for president, he wants to run for that office.

"The future of our country depends on enabling a strong youth base," he said.

Produce More, Conserve More with Climate-Smart Agriculture

Farmers can boost crop production by adopting climate-smart practices.
Credit: USAID

Join #YALIGoesGreen this month. Learn how to get involved at yali.state.gov/climate

With earlier and longer planting seasons and groundwater supplies vanishing faster than they can be replenished as a result of climate change, farmers around the world need to adapt. To chart a path toward a future of food security, in September 2014 the United Nations launched the Global Alliance for Climate-Smart Agriculture. “The nexus between climate change and food security is undeniable,” Secretary of State John Kerry noted on World Food Day a few weeks later.

Farmers can adapt to climate change by adopting these smart practices:

1. Plant several types of crops instead of just one or two. If one crop fails one season because of erratic rainfall, pests or disease, the farmer can count on others that may be more successful.

2. Intercrop two or more types of plants in the same field. For instance, plant maize with soybeans, a forage crop like alfalfa, a root crop or tomatoes. This will maximize the use of land while suppressing weeds during the main crop’s young stage of growth.

3. Rotate crops from growing season to growing season. This helps maintain soil health.

4. Use improved varieties of seeds that yield more and resist stresses like low rainfall, disease and insects while cutting down on pesticides that compromise soil health and pollute nearby water sources.

5. Adopt appropriate irrigation to allow for a full crop season and possibly more than one harvest season a year.

6. Introduce legumes like peas and beans and woody trees to fields. These add protein, vitamins and minerals to livestock diets and take nitrogen from the air, converting it to a compound in the soil that improves fertility.

7. Minimize tilling and leave last year’s residue on the ground after harvest. This protects the top two inches of soil from erosion while increasing soil carbon through decomposition.

8. Take advantage of resources like satellite images to monitor weather patterns to make decisions about what to plant next season.

9. Improve ventilation and shading for livestock to keep them productive.

10. Move herds to new pasture areas to allow overgrazed areas to recover.

11. Invest in improved storage and transportation systems to reduce food loss. Wasted food generates more than 3 billion metric tons of carbon dioxide every year, according to the National

Geographic Society.

12. Collaborate with other farmers to establish a community seed bank so all local producers can acquire varieties adapted to local conditions.

13. Purchase crop insurance as protection against devastating economic loss.

In addition to these smart practices, governments can devote more funding for research to help farms become more resilient to climate change.

Read about the U.N. Global Alliance for Climate-Smart Agriculture.

Simple Facts of Climate Change

Climate change is likely to make droughts, such as those suffered in Kenya, more frequent.
(© AP Images)

Join #YALIGoesGreen this month. Learn how to get involved at yali.state.gov/climate

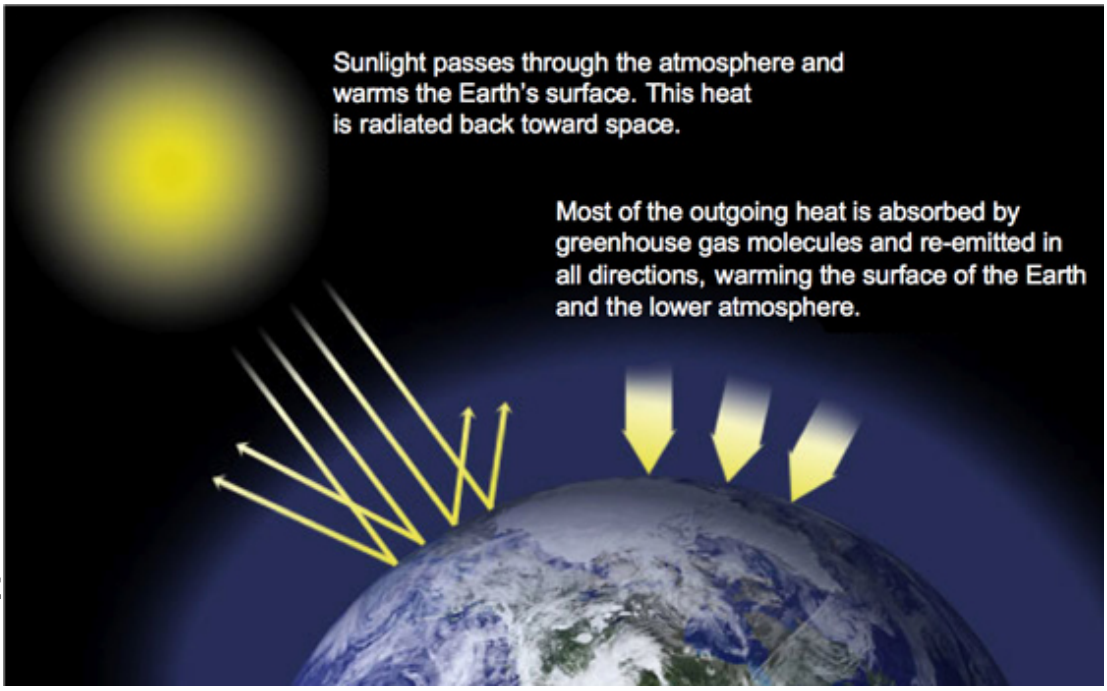
Climate scientists are in nearly unanimous agreement that the Earth's atmosphere is getting warmer. Over the next 100 years, this warming will affect the way people around the world live. Even if you know climate change matters, you might benefit from a brush-up on the basics.

Why is the climate changing?

The light from the sun that passes through our atmosphere and reaches Earth is radiated back toward space as heat. Certain gases in the atmosphere trap that outgoing heat and warm the lower atmosphere and the Earth's surface.

One of these gases is carbon dioxide, and its levels are raised by natural events such as breathing and volcanic eruptions, but also by by human activities such as deforestation and burning fossil fuels. According to NASA, the U.S. space agency, humans have increased the atmospheric carbon dioxide concentration by a third during the last 200 years.

This is a problem because the more carbon dioxide there is in the atmosphere, the more radiated heat the atmosphere traps, making the Earth warmer. This is called the greenhouse effect.



Sunlight hits Earth, which radiates heat back to space unless it’s trapped by greenhouse gases. (NASA)

Weather and climate: They’re not the same.

The change in climate over many years can be hard to perceive because of the way our weather changes from day to day. Some days are hotter, and some cooler. But don’t confuse weather with climate.

When people talk about the weather, they refer to day-to-day, hour-to-hour fluctuations in the atmosphere. The temperature, humidity and rainfall increase and decrease continuously depending on location and season.

When people talk about climate, they are talking about how the atmosphere behaves year-to-year or — more commonly — during decades or centuries in a particular place. Climate describes long-term patterns, and these patterns show that Earth is getting warmer.

What does climate change mean for Africa?

Although climate change will affect the whole world, Africa is especially vulnerable. South Africa, for instance, has been getting hotter during the last four decades. Average yearly temperatures there have increased by 0.13 degrees Celsius each year since 1960. According to the Intergovernmental Panel on Climate Change, if these trends throughout the continent continue:

- Drought and flood events will be more frequent and more intense.
- Water scarcity will increase, leaving as many as 250 million people without the water they need by 2020.
- Revenues from crops will drop by as much as 90 percent in parts of the continent by 2100.

Looking toward solutions

Although the facts of climate change are daunting, there are significant opportunities to prepare for and minimize its effects. Climate Partners offers examples of ways some communities, businesses and individuals are reducing pollution. (You can also follow Climate Partners on Twitter.)
